

**Listing of the Claims**

*This listing of claims will replace all prior versions, and listings, of claims in the application.*

Claims 1-2 (**Canceled**)

Claim 3 (**Currently Amended**) The method of Claim ~~9~~ or 10, wherein the host cell is a prokaryotic cell or an eukaryotic cell.

Claim 4 (**Previously Presented**) The method of Claim 3, wherein the host cell is a microorganism.

Claim 5 (**Previously Presented**) The method of Claim 4, wherein the microorganism is *Escherichia coli*.

Claim 6 (**Currently Amended**) The method of ~~Claim 9~~ or Claim 10, wherein the molecular weight of the polypeptide comprising a serine residue is about 1000 to 20000 daltons.

Claim 7 (**Canceled**)

Claim 8 (**Currently Amended**) The method of ~~Claim 9~~ or Claim 10, wherein the atrial natriuretic peptide is human atrial natriuretic peptide.

Claim 9 (**Cancelled**)

**Claim 10 (Previously Presented)** A method for producing a polypeptide comprising a serine residue comprising:

- (i) culturing, in a medium, transformed host cells that produce a recombinant atrial natriuretic peptide comprising a serine residue and a byproduct polypeptide comprising an O-acetylserine residue in place of a serine residue in the atrial natriuretic peptide;
- (ii) adding at least 3 g/L methionine and at least one of at least 3 g/L histidine or at least 3 g/L glycine to the medium; and
- (iii) reducing the formation of said byproduct polypeptide,  
wherein the formation of said byproduct polypeptide is reduced in an amount greater than or equal to 50% as compared to a control medium with no methionine, histidine, or glycine added.

**Claims 11-17 (Canceled)**

**Claim 18 (Previously Presented)** A method for producing a polypeptide comprising a serine residue comprising:

- (i) culturing, in a medium, transformed host cells that produce a recombinant atrial natriuretic peptide comprising a serine residue and a byproduct polypeptide comprising an O-acetylserine residue in place of a serine residue in the atrial natriuretic peptide;
- (ii) adding at least one of at least 3 g/L histidine or at least 3 g/L glycine to the medium; and
- (iii) reducing the formation of said byproduct polypeptide,  
wherein the formation of said byproduct polypeptide is reduced in an amount greater than or equal to 50% as compared to a control medium with no histidine or glycine added.

**Claims 19-26 (Canceled)**

Claim 27 (**Previously Presented**) The method of Claim 18, wherein the host cell is a prokaryotic cell or an eukaryotic cell.

Claim 28 (**Previously Presented**) The method of Claim 27, wherein the host cell is a microorganism.

Claim 29 (**Previously Presented**) The method of Claim 28, wherein the microorganism is *Escherichia coli*.

Claim 30 (**Previously Presented**) The method of Claim 18, wherein the molecular weight of the polypeptide comprising a serine residue is about 1000 to 20000 daltons.

Claim 31 (**Previously Presented**) The method of Claim 18, wherein the atrial natriuretic peptide is human atrial natriuretic peptide.

Claim 32 (**Currently Amended**) The method of Claim 18, further comprising adding an the amount of methionine effective to reduce formation of a byproduct polypeptide wherein said amount is at least 3 g/L.

Claims 33-36 (**Canceled**)